

Attorney Docket No.: 67110070.1003  
Serial No. 09/379,439

### **REMARKS/ARGUMENTS**

Claims 1-58 are currently pending before the Patent Office. Claims 31-46, 51, 53 and 54 are allowed. Claims 50 and 58 are objected to because of informalities, but are deemed allowable if appropriate correction is taken. Claims 2, 47 and 55-58 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,784,423 to Lidsky et al., while claims 1, 3-4, 14-30, 48-49 and 52 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lidsky in view of U.S. Patent No. 3,995,162 to Peterson. By this Amendment, Applicants have amended claims 47, 50 and 58. Accordingly, claims 1-58 remain pending in the present Application, and Applicants assert their condition for allowance over the prior art for at least the reasons set forth in prior Amendments, as well as the reasons set forth below, and thus respectfully request reconsideration of the rejected claims.

#### **I. OBJECTIONS**

The Examiner has objected to claims 50 and 58 because of informalities. Specifically, the Applicants have amended claim 50 to correct the antecedent basis problem, and have amended claim 58 based on the Examiner's recommendation. Accordingly, the Applicants respectfully request that the objections be withdrawn.

#### **II. REJECTION UNDER 35 U.S.C. § 102**

The Examiner has again rejected claims 2 and 47, as well as newly added claims 55-58 under 35 U.S.C. § 102(b) as anticipated by Lidsky. This rejection is respectfully traversed because Lidsky fails to expressly or inherently describe the application of a medical linear accelerator as set forth in each of claims 2, 47 and 55-58. More specifically, although Lidsky's invention may produce a target material that is a source of intense neutron radiation that can be used for further isotope

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generation or absorption in medical and industrial applications (col. 3, lns. 6-12), Lidsky does not expressly or inherently describe or disclose the application of a medical linear accelerator as the source of the electron beam or the source of the x-rays.

Medical accelerator-based radiotherapy using a medical linear accelerator is a potentially curative treatment modality for a variety of cancers. Its effectiveness, however, is highly dependent on the accuracy of the radiation dose being delivered to the area being treated, as well as the precision in delivery that dose to a specific target area. Thus, because of the precision and accuracy required when employing medical linear accelerators, the Applicants respectfully assert that the use of an ordinary electron beam (16) by Lidsky does not disclose, either expressly or inherently, the use of a medical linear accelerator for generating the x-rays as recited in the present claims. Moreover, since Lidsky does not discuss any such precision in the generating of his electron beam, the Applicants further assert that there would be no motivation in Lidsky to modify the teachings therein in order to arrive at a medical linear accelerator. The teachings in Lidsky are simply not sufficient to lend themselves to employing a medical linear accelerator as recited in the present claims. Accordingly, since Lidsky fails to expressly or inherently disclose a medical linear accelerator as the source of neutron radiation, the Applicants respectfully request that the rejection of claims 2, 47 and 55-58 as being anticipated by Lidsky be reconsidered and withdrawn.

### III. REJECTION UNDER 35 U.S.C. § 103

The Examiner has also rejected claims 1, 3-4, 14-30, 48-49, and 52 under 35 U.S.C. §103(a) as allegedly being unpatentable over Lidsky in view of U.S. Patent No. 3,995,162 to Peterson. Specifically, the Examiner believes it would have been obvious to one of ordinary skill in the art at the time the present invention was made to substitute Lidsky's irradiation system

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with Peterson's relative positioning apparatus. This rejection is traversed because there is no motivation to modify Lidsky or combine Lidsky with Peterson to arrive at the invention(s) of the present claims. Specifically, the positioning device taught in Peterson is not combinable with the target assembly (item #36) and the pushrod (item #48) of Lidsky, because the transverse movement employed by Peterson would frustrate, and thus teaches away from, the target object movement employed by Lidsky. For example, in order to implement the transverse object movement of Peterson in Lidsky's system, Lidsky's entire pushrod (48) and target assembly (36) would have to be substantially modified or completely abandoned, and there is simply no motivation for such significant changes to Lidsky's device. As a result, the two movement systems are contrary to each other and substituting one for the other would detrimentally affect the operation of either system; therefore, the two references are not properly combinable.

(M.P.E.P. 2143.01)

In addition to the lack of motivation to combine, even when combined the proposed combination does not result in the present invention as claimed. Lidsky still does not teach or suggest the use of a medical linear accelerator, as discussed above, and Peterson does nothing to cure this deficiency. In fact, the sheer absence of precision in Peterson's apparatus tends to suggest it could not be combinable with any reference that teaches some amount of precision in its generating device. For at least these reasons, the Applicants respectfully request that the rejection of claims 1, 3-4, 14-30, 48-49, and 52 as being obvious over Lidsky in view of Peterson be reconsidered and withdrawn.

#### IV. CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that pending claims 1-58 are in condition for allowance. Since the present Amendment is within

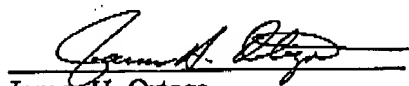
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three-months from the mailing of the Final Office Action, no fee is believed to be due at this time. However, if it is determined that any fees are required, the Commissioner is authorized to charge those fees or credit any overpayment to Account No. 13-0480, referencing Attorney Docket No. 67110070.1003.

In addition, if the Examiner has any questions regarding this Amendment and Response to Office Action or the Application in general, the Examiner is invited to contact Applicants' Attorney or Record at the below-listed telephone number.

Respectfully submitted,

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